A week in Havana, Cuba, in February 2015

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In late 2014, I received an invitation from MEDICC (Medical Education Cooperation with Cuba), a nonprofit organization founded in 1997 that works to enhance cooperation among the US, Cuban, and global health communities through its programs, to be part of a delegation of 13 editors of various US medical journals to visit Cuba in February 2015. I jumped at the invitation, and it proved to be a busy, educational, and enjoyable 7 days.

We arrived in Havana (2.1 million population) on Sunday via chartered plane from Miami and after arrival at the hotel learned that our reservations for the 7 nights had been inadvertently canceled. As a result, we stayed at 3 different hotels (6 nights), and individually in a private home one night. (The disruption apparently was the result of the sudden influx of visitors to Cuba. Their infrastructure was not quite ready for it.) On Sunday afternoon (arrival day) the group had a bus tour of Havana. The city appears to be frozen in time. The cars of the 1950s and earlier are everywhere. There are no Starbucks, ATMs, or splashy billboards. Touring the city was like traveling backward in time. Old Havana is crumbling, people walk everywhere, parks are plentiful, and the seashore and coastal roads are beautiful. Havana's best attractions include the waterfront promenade, known as the Malecón, Old Havana, Hemingway's estate in Finca Vigia, and the Museo de la Revolución.

Violent crime in Havana is rare. (Fidel Castro kicked the mafia out soon after arriving in Havana.) Cash is king in Cuba. One has to change US dollars into convertible pesos, also known as CUCs (not CUPs, the currency used by locals). On paper, one US dollar is worth one CUC, but the Cuban government takes a 13% fee, so you get 87¢ for each US dollar. MasterCard, Visa, and American Express cards are not authorized for use in Cuba. Hotels sell Internet cards for lobby wi-fi for \$4.00 to \$5.00 per 30 minutes. Even then, the wi-fi may not work. A paper map is essential. Drivers do not have GPS and there is no Googling for addresses on the fly. Cuba's vintage cars sound picturesque until you are in one, with no seatbelts, no air-conditioning, broken windows, belching smoke, and doors that can open in transit. Havana's official, government-owned taxis are newer than privately owned cars. Tourists are routinely overcharged. The privately owned restaurants are better than the government-run cafeterias. Prices are moderate but not cheap. Food is good but not outstanding.

Monday, our first full day in Cuba and the beginning of our education program, began with a visit to a *polyclinic* and then to the office of a *family physician* and her nurse. The female physician whom we visited had a small office with a small file cabinet that held her 1000 or so patient files, a small waiting room, and a small examination room. The family physicians group their population into four categories: those who 1) are healthy, 2) have a high risk for illness, 3) have an acute illness, and 4) have a chronic illness. All care is free. There are no electrocardiographic machines or other instruments of precision in the family practitioner's office. Each family practitioner, at least in Havana, cares for approximately 900 to 1200 people living within a 5-block walk from their office. Office hours are from 8:00 AM to 12:30 PM and then the physician and nurse make home visits, which are at least an annual requirement.

The polyclinic supports about 40 family physician/nurse teams. The polyclinic serves a population of about 43,000 people in a 1.5 km area. The polyclinic has over 500 staff, including physicians, nurses, dentists, technicians, residents, and medical students. We saw only female physicians. Patients who need blood work are referred to the polyclinic, which is only a few blocks from the family physician's office.

Cuba is extremely proud of its health care system. Medical care is considered a citizen's right, and it is a responsibility of the government to provide the care. Every citizen in every community has his or her own private family practitioner to provide the free care. Each family practitioner is provided with his or her nurse, whose dress was better than that of the physicians. The nurses were a proud group. The female family practitioner we visited has practiced in her community for 25 years and lives in an apartment above her office.

During that visit, we learned that there is at least one medical school in each of the 15 provinces in Cuba. The infant mortality rate in Cuba is 5 per 1000 births, better than in the USA. The reproduction rate among women capable of having babies is only 1.2, much less than the 2.2 required for

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population replacement. The government wants more babies. Birth control devices (the pill, diaphragm, condoms) are provided on request. Abortions must be provided up to 20 weeks if requested by the patient.

We had lunch at a private restaurant, *Le Gardin de Los Milagros*, located on the outskirts of Havana. February is in the middle of winter in Havana—the best season and perfect weather, with 70° to 80° temperatures midday.

We ended the day discussing publishing with the editors of *MEDICC Review*, the only English-language journal focused on Cuban medicine and health research. It began in 1999. The journal is open access and published quarterly. Late Monday afternoon, we moved to another hotel—Hotel Nacional de Cuba, located in Old Havana on the shoreline and built in the 1930s. I loved it! Dinner was in the hotel—only a sandwich preceded by some refreshments overlooking the Bay. I was the only man who did not smoke a Cuban cigar.

On Tuesday, we visited a *maternity home* where pregnant women are seen and those at high risk can be hospitalized until near the time of delivery, when they go home—with some exceptions—and several days to a week or so later are taken to the hospital where deliveries are carried out. There are no deliveries in the maternity home. Pregnant women considered at high risk included those who were underweight when they became pregnant; gained too much weight during pregnancy; had a cardiovascular condition; had anemia, diabetes mellitus (on insulin), a thyroid problem, cancer, HIV, placenta previa, or twins; some teenagers; and those with housing issues, including alcoholism in a family member or location in a potentially unsafe area. On the way to lunch, we visited a rum factory where rum and cigars were sold. Then lunch was at *La Casa Restaurante* where fish, rice, beans, and beer were provided.

The afternoon was spent at the *National Institute of Hygiene, Epidemiology, and Microbiology*, a unit of the Ministry of Public Health of Cuba founded in 1902 and located in a rundown building. It serves as the country's regulator of food safety, sanitation, unhealthy environment, and, among other things, an advocate of healthy eating, ideal body weight, breastfeeding for 6 months after delivery, and other healthy habits. Anemia is common in Cuba, and most cases are due mainly to poor diversity of diet. About 30% of Cuba's children have anemia, usually mild. If a mother is anemic, usually the fetus is also anemic. This institute is also involved in food fortification. We also learned that Cuba has no advertisements on television and instead broadcasts educational materials between shows with spots available on handwashing, breastfeeding, smoking cessation, and accident prevention, among other things.

On Wednesday we visited the *William Solar Pediatric Heart Surgery Center and the Pediatric Hepatobiliary Surgery Center*. This hospital was opened in 1986 and dedicated by Fidel Castro, who said he wanted it to be the largest and best in the world. It accepts both adult and children with congenital heart disease. It is one of three in the country and is named for *William Solar*, a 15-year-old who died or was killed in the revolution. The Pediatric Hepatobiliary Surgery Center is the only center in the country where liver transplants are done. The donor population

for livers in Cuba is only 15 per 1 million citizens. Since the population is just over 11 million, that means a maximum of 165 liver donors each year. The center recently moved to living donor livers because of the shortage. The group also does kidney, bowel, and bone marrow transplants. All Cuban citizens have organ donor cards for wallets and purses. The heart hospital was modern and impressive. We met no cardiac surgeons but did meet two cardiologists. The frequency of congenital heart disease in Cuba is 5.5 per 1000 births. It is the only hospital in Cuba caring for kids <3 years of age. From 1986 to 2013, it did 8500 heart operations with an 86% success rate. Of the 8500 patients, 8% required further surgery later, 1600 reached adulthood, and >500 became moms. Patients are followed annually after their operation. A full-time dentist worked in the hospital, and she saw all those with heart disease.

We then visited the *National Health Information Service*, Cuba's national library. This was a very modern structure. It was established in 1965 with the recognition of a need within the medical field for a center devoted to compiling and disseminating medical information. By the 1990s, Cuba began developing a virtual medical library and medical university and what became known as *Infomed*, a network to share medical information countrywide. Infomed offers access to journals, books, and other resources through the virtual medical library, open courses through the virtual medical university, health data sets, and community of health care websites devoted to various specialties and medical topics.

We finished the day with a visit to the *Latin American School of Medicine* (ELAM), the most impressive visit of the week, in my view. It was formerly a military institution headed by Raul Castro, but was converted to ELAM, a medical school initially for Latin Americans but gradually for foreigners from many nations. Up through 2015, it was free to all 6000 students, initially aged 18 to 30. The first 20 weeks are spent learning Spanish and after 3 years the students are farmed out to the university medical schools throughout the country. The classes of 1000+ students, costing the country about \$43 million a year, are divided into groups of 25 and taught by the university professors, mainly in Havana. Tuition, books, lodging, and food have been free, but that will change in 2016. The students now come from 160 countries. The campus is beautiful. The goal is to train general physicians and send them back to their own countries to be placed where they are needed the most. We spoke to students after the orientation. I met four—from New York City, Long Island, Colorado, and Wisconsin. All were very attractive, enthusiastic, and appeared happy.

On the bus earlier that afternoon, I sat next to a professor from one of their medical institutions. She told me that when Raul Castro dies, "Cuba will have a party." She is paid 2500 Cuban pesos a month. The family practitioner in the community is paid 1500 Cuban pesos a month. Havana accounts for 70% of the country's economy, even though only about 2 of the 11 million citizens reside in that city. Most of the electricity, rent, and, until recently, food is subsidized by the government. Taxes are 5% of income. Some of the hospital floor cleaners, travel agents, and tour guides make more money than

the physicians. The Cuban economy, she indicated, and as we knew, is in bad shape, not due to the US embargo but because of the terrible inefficiency of its workers. Ineffective employees are difficult to fire. Communism produces inefficiency. Before the revolution in 1959, medical care in Cuba was free for services and physicians were very well off. That of course changed when Castro came in 1959.

Dinner was at the *Star Bien Restaurant* on 29th between B and C, the way addresses are given there. The streets at night are poorly lit but safe.

On Thursday, we packed belongings at the Nacional Hotel for the bus because the group was moving to Hotel TRYP Habana Libre, the former Havana Hilton hotel used by Fidel Castro as his headquarters when arriving in Havana in 1959. The first morning visit was to the *Comprehensive Diabetes Care Center* housed in a former mansion located next to what is now the Museum of the Revolution. The Diabetic Center provides medical care for an area of Havana and trains residents; both Cuban and foreign physicians do research. It serves as a “day-only” hospital (7:00 AM to 4:00 PM). The patients, both pediatric and adult, have to be on a metabolic drug and need diabetic education. When the schoolchildren are out of school in July and August, 2 weeks around Christmas, and another 2 weeks in the spring, they dominate the center and receive training about their diabetes. The Diabetic Center tries to make the children normal members of society. Mainly adults are seen at other times. For teenagers: “Sweeten my life, don’t sweeten my body.” They have an area where various exercises are taught. The center also offers ophthalmological, neurological, pediatric, and psychological services. It takes in 25 children for one week and the institution gives them a party at the completion. There are 18 diabetic outlets in Cuba, but the Havana site provides the methodology for the others.

Healthy living is promoted all over Cuba. Every diabetic center promotes healthy foods, shows how to produce and prepare good food, emphasizes no sweets for children and no artificial sweeteners, and has huge screening programs for detection of diabetes. Orthopedic and vascular surgeons for diabetic complications are close by. (Cuba produces huge amounts of sugar cane, of course, and sweets such as cookies and rum are a part of its normal culture.) Pregnant diabetic women also come to the Diabetic Center for disease education. Type 1 diabetes is of low frequency in Cuba. Although obesity is fairly frequent in Cuba, it is less than in the US. Most Cubans are very active, many do not have cars, and sporting activities are encouraged.

Both adult women and men work outside the home. The woman is given the first year off after giving birth. Then, beginning at 1 year of age, the child spends the day in kindergarten and the mother resumes working outside the home.

We then visited the *National Center of Medical Genetics*. The purpose of this center is to do genetic epidemiology to learn the prevalence of various genetic disorders in their population: to learn the genetic mixture of the Cuban population and their genetic susceptibility to various diseases including Alzheimer’s, asthma, diabetes, systemic hypertension, depression, bipolar disorders, familial cancer, coronary artery disease, schizophrenia, and Parkinson’s; map mutations in known genes and new unknown genes; evaluate the impact of genetic counseling on the Cuban population; determine causes of major disabilities in the Cuban population; learn more about aging; and study transgenic models to learn protein functions and immunological mechanisms for genetic susceptibility to infectious diseases.

We ended the week on Friday at Cuba’s *National School of Public Health*. Although there are numerous medical schools in Cuba, there is only one school of public health, which is woven into the education of all health professionals. This school exists to train those who will fill positions in areas like administration and epidemiology. The school was founded in 1927 and is responsible for teaching and research of public health in Cuba. It offers postgraduate training, with a PhD program and master’s programs; coordinates health systems and services research; and serves as an advisory role for the Ministry of Public Health. (Restrooms in the building were sparse on toilet paper and toilet seats.) We then had presentations from the managing editor of *MEDICC Review* and discussed ways the journal could be improved despite meager salaries.

We returned to the United States on Saturday. The visit was educational and enjoyable. All Cubans we met were friendly and welcoming. The Castro brothers have to be given credit for making health care and education priorities for their government (as they were before the revolution), which are both free of cost. They send physicians they have trained in Cuba all over the world. That mission is part of their foreign policy. Although the present regime is totalitarian, certain civil liberties are improving. When the embargo is lifted, I suspect US companies will move in rapidly and the present Cuba will not be recognized several years from now. I was glad to have the opportunity to visit this island at this time. I am glad that the USA and Cuba have reestablished diplomatic relations (as of July 2015).